

Gender Equality in Research and Innovation

Dr Charikleia (Charoula) Tzanakou

Co-Director of the Centre for Diversity Policy
Research and Practice

Oxford Brookes Business School

Structure of the presentation

- PART 1 +3.1 : Understanding current situation of gender equality in Europe and Greece/Why it matters?
- PART 2: What is sex/gender?
- PART 3.2: Gender dimension in research

Gender equality policy landscape

Two decades of gender equality policy in research and innovation...

- too few women in science
- slow career progress
- under-representation in research decision-making
- lack of gender perspective in teaching and research



Women are close to reaching gender parity among doctoral graduates...



48.1%
of doctoral graduates
in EU 27 (2018, Eurostat)

Source: [European Commission \(2021\)](#)



Women are close to reaching gender parity among doctoral graduates...



48.1%
of doctoral graduates
in EU 27 (2018, Eurostat)

**47.4% in
Greece**

Source: [European Commission \(2021\)](#)



SHE FIGURES presents data on the European Commission's gender equality priorities in the field of research and innovation policy.

Women are
*under-represented at the
highest level in academia...*

Source: [European Commission \(2021\)](#)



Overall, women account for

Women are under-represented at the highest level in academia...



42.3% of academic staff



Women are under-represented at the highest level in academia...

In Greece 36.54%

Source: [European Commission \(2021\)](#)



Representation of women by academic grade (higher education sector)



(2018, DG R&I Women in Science database)



Representation of women by academic grade (higher education sector)



EL

22.2%

32.4%

36.7%

51.1%

(2018, DG R&I Women in Science database)

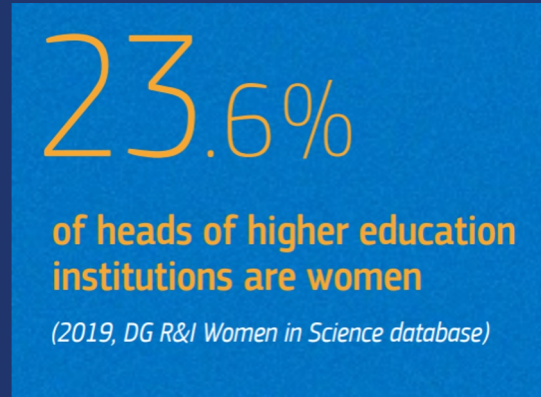


23.6%

of heads of higher education institutions are women

(2019, DG R&I Women in Science database)

Source: [European Commission \(2021\)](#)



Source: [European Commission \(2021\)](#)

**16% in
Greece**

UoC faculty

Representation of women

- Physics :4.7%
- Maths:7.6%
- Comp sci:8.7%
- Chemistry 9%
- Economics 9%
- Politics 13%
- Biology 23%
- ...
- Preschool education 62.9%

Table 10. UoC faculty by gender and rank (2018-2019)

Rank	Number		Percentage (%)		Ratio	Total
	W	M	W	M		
Professor	30	151	16.6	83,8	W \approx 1/5 M	181
Associate Professor	54	101	34.8	65,2	W \approx 1/2 M	155
Assistant Professor	51	70	42.1	57,9	W \approx 5/7 M	121
Lecturer	2	1	--	--	M = 1/2 W	3
Total	323	137	70.2	29,8		460

Source: data for 2018-19, GEP online

ERA Communication 2012

Three priorities

- gender equality in careers at all levels;
- gender equality in decision making;
- integration of the gender dimension into Research and Innovation (R&I) content

*Reflected in funding from framework programmes-
Horizon 2020*

Horizon 2020-SwafS Gender Projects

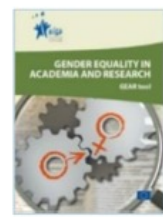


Implement the 3 objectives of gender equality as an ERA priority through Gender Equality Plans
 RPOs and RFOs - Partners at a starting stage - Professional associations – Link with national level

Support from the highest management level

Explain role of middle management

Make use of the GEAR Tool (2016)



GENERA
LIBRA
PLOTINA

SAGE
EQUAL-IST
Baltic Gender

TARGET
GEECCO

CHANGE
SUPERA
R-I PEERS

Gender-SMART
GEARING-ROLES
SPEAR

CALIPER
LeTSGEPs
EQUAL4EUROPE



EC
GEP Cluster event
(28 Feb 2018)

EC
GEP Workshop
(4 March 2020)

For more information on the projects, click [here](#)



New EC Gender Equality Strategy 2020-2025
**Communication on 'A Union of Equality: Gender Equality
Strategy 2020-2025'**

New measures to strengthen gender equality in Horizon Europe:

- An initiative to increase the number of women-led technology start-ups
- Funding for gender and intersectional research will also be made available
- The possibility to require a gender equality plan from applicants

Gender Equality Plans as an eligibility criterion in Horizon Europe

From 2022 onwards, having a GEP (Gender Equality Plan) will be an eligibility criterion for all public bodies, higher education institutions and research organisations wishing to participate in Horizon Europe, see [here](#) and [here](#)



GEP building blocks

PUBLICATION

a formal document published on the institution's website and signed by the top management.

1

DEDICATED RESOURCES

a commitment of resources and expertise in gender equality to implement the plan.

2

DATA COLLECTION & MONITORING

sex/gender-disaggregated data on personnel (and students, for the establishments concerned) and annual reporting based on indicators.

3

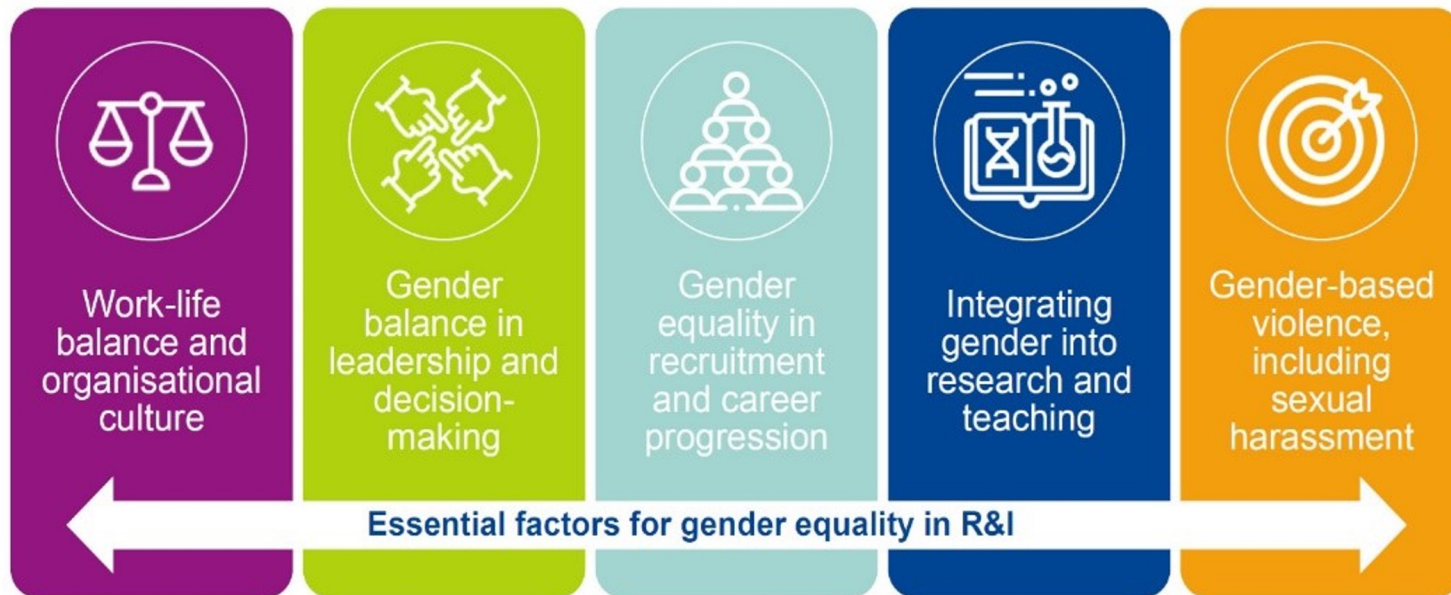
TRAINING

awareness-raising/ training on gender equality and unconscious gender biases for staff and decision-makers.

4

Recommended priority areas

Recommended GEP content areas



Fixing the numbers

Fixing the institutions

Fixing the knowledge

See: [Gendered Innovations](#) and [Gendered Innovations 2](#)

Any questions/comments?

Why gender equality matters?

HOW DO WE UNDERSTAND GENDER EQUALITY?



Source: Agents of Good <https://agentsofgood.org/2017/05/08/>

What implications for institutional change?

Why it matters?

- The right thing to do – (moral case)
- The smart thing to do – (business case)
 - Labour market participation
 - Diversity of talent
 - New business ideas
 - Performance

Sources: Hoogendoorn, Oosterbeek, & Van Praag, 2013; Roh & Kim, 2016; Özbilgin et al. (2013); Equal Opportunity Commission, 2005

Denial : there is a not GE problem

- Academia is meritocratic
- Pipeline problem?
 - Not enough women
 - But => 50% of women PhDs in Biological/social sciences
- Childcare problem?
 - Not enough time for research
 - Childcare or societal problem?
 - Role of working fathers
 - Role of the institution/national welfare system – daycare
 - Women with no children – not progress as quickly as men

- If you have heard the following riddle please do not answer



A riddle

A father and son are in a horrible car crash that kills the dad. The son is rushed to the hospital; just as he's about to go under the knife, the surgeon says, "I can't operate—that boy is my son!"

How do you explain this?



Orchestras in the US

1970s:

5% of musicians in top 5
orchestras in US were women

2021:

A third of the Boston Symphony
Orchestra were women

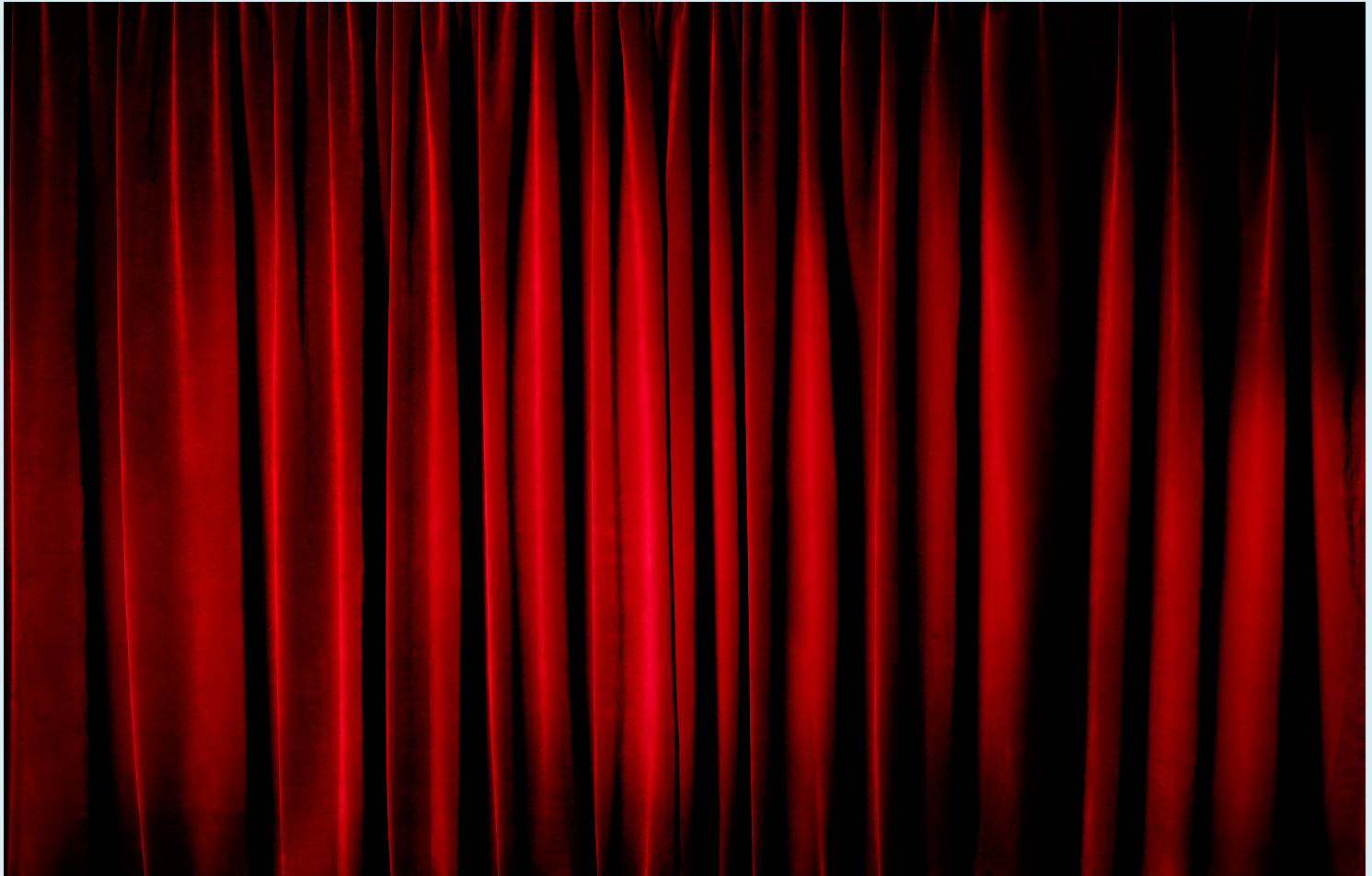
Half of the New York
Philharmonic were women

What changed?



[This Photo](#) by Unknown Author is licensed under [CC BY-SA](#)

Blind auditions



Bias in CVs

- Yale Study: a man and a woman applied for a laboratory manager position at a university
- Identical , had the same qualifications
- Science faculty rated the man as significantly , more competent than the woman, more likely to hire him

Source: Moss-Racusin, C. A., Dovidio, J. F., Brescoll, V. L., Graham, M. J., & Handelsman, J. (2012). Science faculty's subtle gender biases favor male students. *Proceedings of the national academy of sciences*, 109(41), 16474-16479.

Gender and race bias experiment

- Emails sent to 6,500 professors at 258 U.S. universities representing 89 different disciplines.
- Meeting requests from prospective PhD students
- Names of students varied to indicate
 - Sender as man, woman
 - White, Black, Hispanic, Indian or Chinese

Results

Faculty significantly more responsive to Caucasian men than other categories of students collectively, particularly in higher paying disciplines and private institutions

Implicit bias

“ Implicit bias is an automatic reaction we have towards other people. These attitudes and stereotypes can negatively impact our understanding, actions, and decision-making.”

- Project implicit – Harvard university
- Scientific collaboration
 - Raise awareness about bias, understanding biases, stereotypes
 - Virtual lab for data collection

Take the test

- <https://implicit.harvard.edu/implicit/takeatest.html>

What Should We Remember?

Too Much Information

We store memories differently based on how they were experienced

We notice things already primed in memory or repeated often

Bizarre, funny, visually-striking, or anthropomorphic things stick out more than non-bizarre/unfunny things

We reduce events and lists to their key elements

We notice when something has changed

We discard specifics to form generalities

We edit and reinforce some memories after the fact

We are drawn to details that confirm our own existing beliefs

We favor simple-looking options and complete information over complex, ambiguous options

We notice flaws in others more easily than we notice flaws in ourselves

To avoid mistakes, we aim to preserve autonomy and group status, and avoid irreversible decisions

We tend to find stories and patterns even when looking at sparse data

To get things done, we tend to complete things we've invested time & energy in

We fill in characteristics from stereotypes, generalities, and prior histories

To stay focused, we favor the immediate, relatable thing in front of us

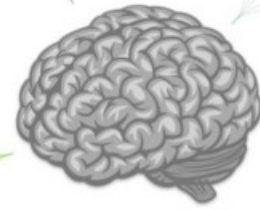
We Need To Act Fast

To act, we must be confident we can make an impact and feel what we do is important

We simplify probabilities and numbers to make them easier to think about

Not Enough Meaning

We imagine things and people we're familiar with or fond of as better



Visual & Algorithmic Design: John Manoogian III
 Concept & Categorization: Buster Benson
 List of 188 Cognitive Biases: Wikipedia

Unconscious bias

- Training: debate about its effectiveness
- Concerns that it might even make people to take no action (since their biases are unconscious!)
- Training needs – connect biases with how people behave and how it affects their decisions (and impact on other people)
- Training –starting point : Continuous discussion and reflection
- It doesn't consider systemic issues (hostile environments, unfair policies)

What can universities/uni staff can do ?

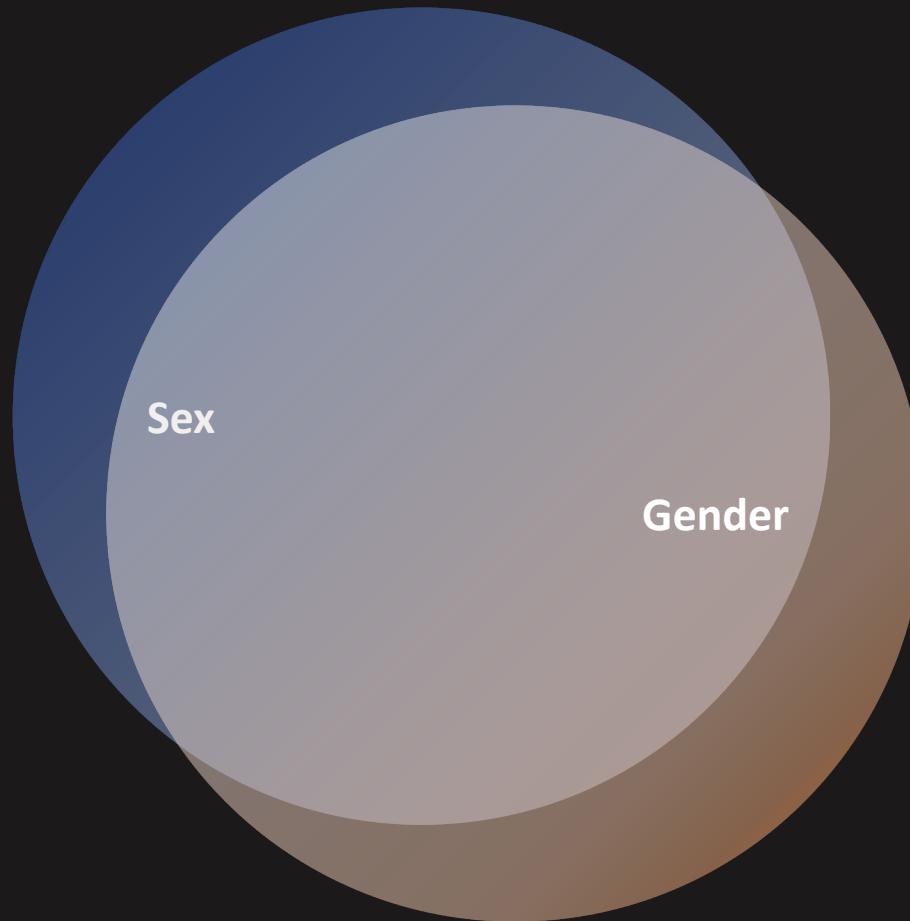
- Know the data, understand how gender influences evaluations/ rewards
- GE requires continuous and consistent effort – not a quick fix
- Accountability is required from top to bottom
- Experiment with activities, if they fail, redesign
- Check our biases/reflect upon them

(Source: Valian, 2004)

What is Sex/gender

Sex is a biological marker, with people typically attributed to the categories 'female' and 'male' at birth

Note however, that some people do not fit into this binary, e.g. unclear genitalia or different chromosomes sets, and are therefore intersex people



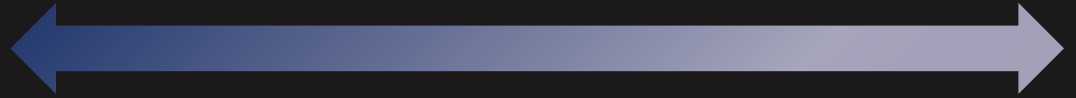
Gender is a social construction, which for most people is aligned to the sex at birth

Gender is about the categories of 'women' and 'men', but here again not everybody fits neatly into these categories

People may identify as non-binary, or live their life in their preferred gender, even if that is not aligned to their sex

See [Guenther, Humbert and Kelan \(2018\)](#)

Sex

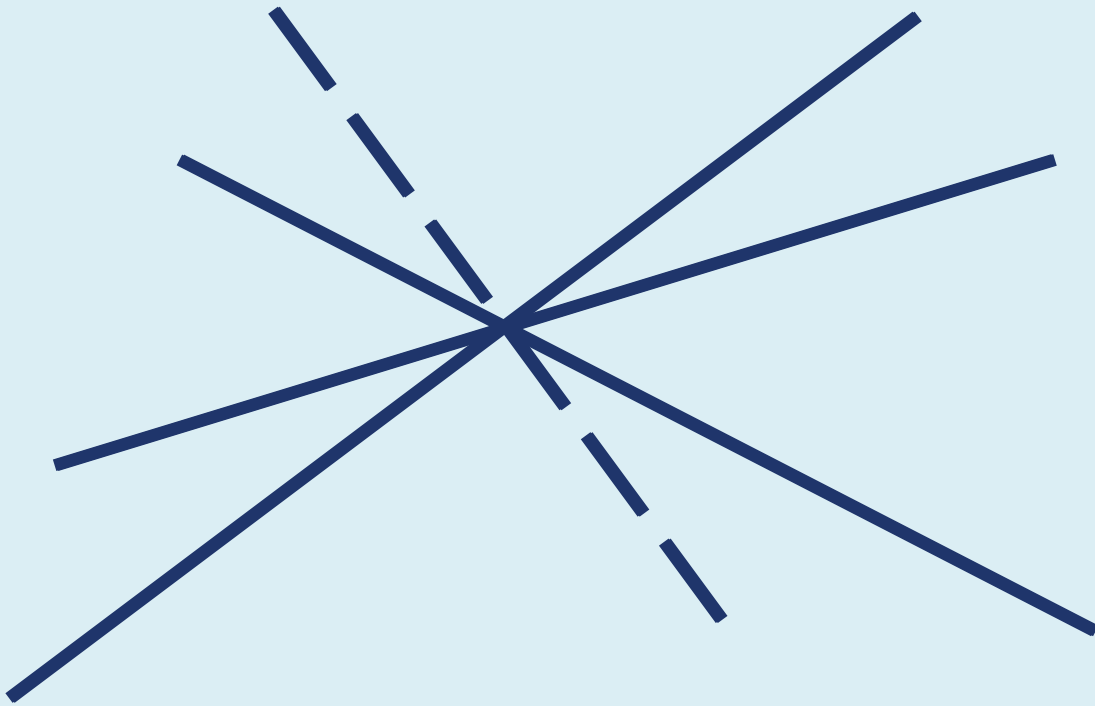


Gender



Sexual orientation





Intersectionality

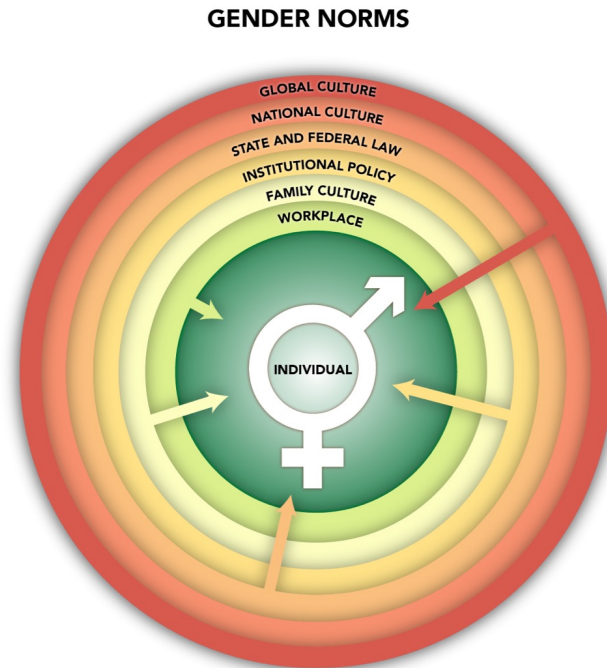
Ethnicity

Gender identity

Disability

Gender norms

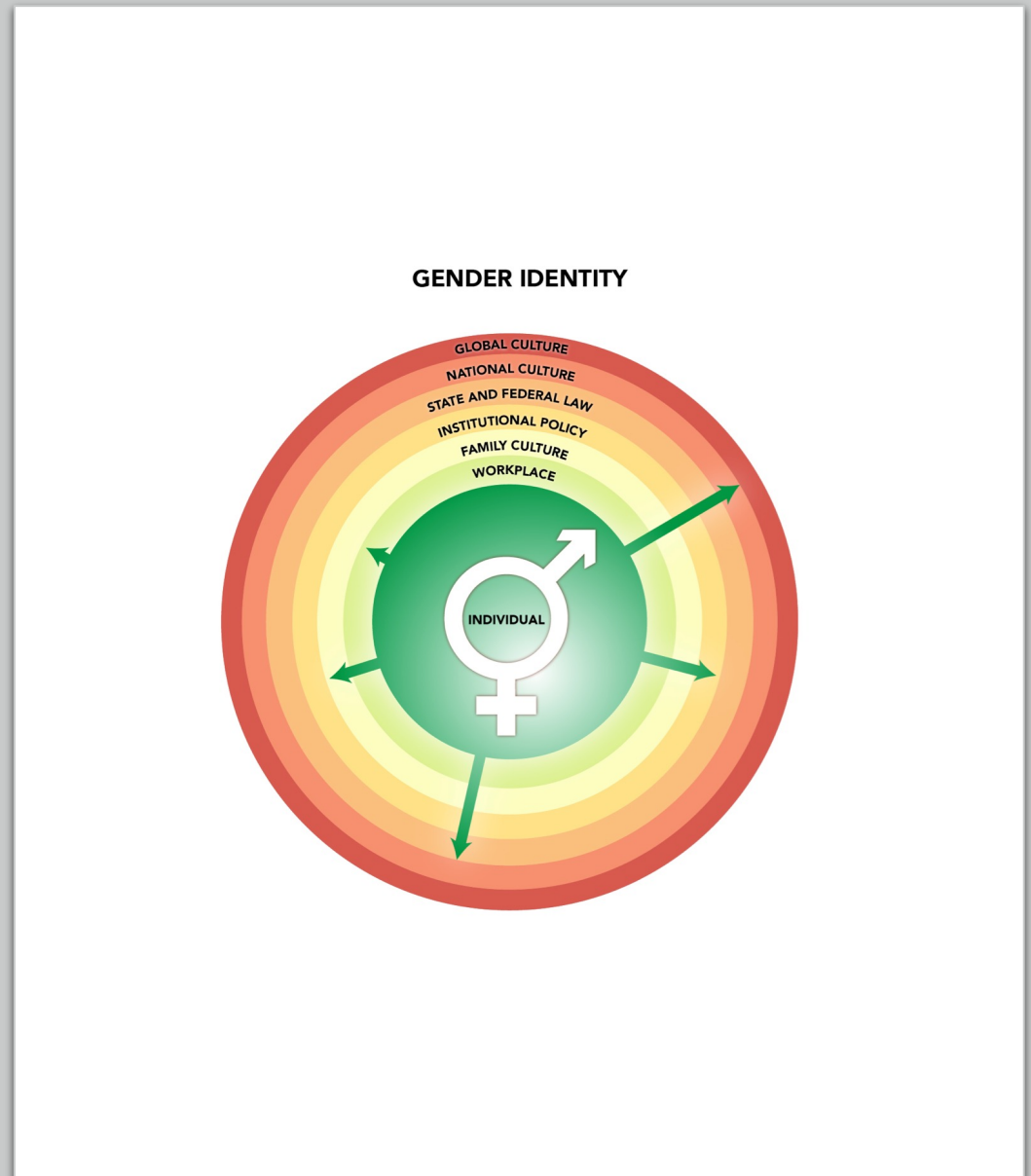
- Produced through social institutions (families, schools, work places); social interactions (family members, colleagues, partners) and wider cultural products (literature, film)
- Refer to attitudes and expectations about which preferences, professions and behaviors are appropriate for men, women, gender diverse individuals
- Are dynamic and can change in different contexts (location, point in time)



Source: Gendered innovations

- refer to how individuals or groups perceive and present themselves in relation to gender norms. Gender identities may be context-specific and interact with other identities, such as ethnicity, class or cultural heritage

Source: Gendered innovations



PART 4: Gender dimension in research

Gender dimension in research

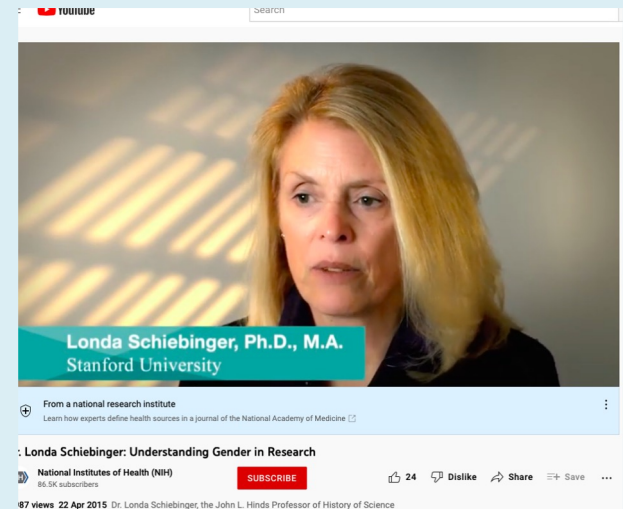
Gender dimension means integrating sex and gender analysis into research [...] integrating into **all phases** of basic and applied research—from setting priorities, to funding decisions, to establishing project objectives and methodologies, to data gathering, analysing results, and evaluation.

Source: Gendered innovations

Why is gender dimension important?

Gendered innovations,
Stanford University -
Professor Londa
Schiebinger

<https://www.youtube.com/watch?v=GAOLxEpHrwQ>



NIH National Library of Medicine
National Center for Biotechnology Information

PubMed.gov

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> JAMA. 2001 Oct 17;286(15):1863-8. doi: 10.1001/jama.286.15.1863.

Fetal deaths related to maternal injury

H B Weiss¹, T J Songer, A Fabio

Affiliations + expand
PMID: 11597288 DOI: 10.1001/jama.286.15.1863

Abstract

Context: Maternal and fetal trauma is an important cause of adverse fetal outcomes. However, systematic exclusion from US injury surveillance programs of even the most severe outcome, fetal/neonatal death, has led to a lack of understanding about frequency, causes, and prevention.

Objective: To determine the rate of traumatic fetal deaths reported in state fetal death registries and the types of trauma and physiologic diagnoses associated with these deaths.

Design and setting: Retrospective descriptive study of fetal death certificates from 1995 through 1997 obtained from 16 states, which accounted for 55% of US live births and approximately 15 000 fetal death registrations per year.

Main outcome measure: Rate of fetal injury deaths, based on fetal death certificates coded with an underlying cause of death due to maternal injury at 20 weeks' gestation or later, by cause.

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Inclusive Crash Test Dummies: Analyzing Reference Models | Gendered

What is Gendered Innovations?

SEX & GENDER ANALYSIS

General Methods
Specific Methods
Terms
Checklists

CASE STUDIES

Science
Health & Medicine
Engineering
Environment

INTERSECTIONAL DESIGN

POLICY RECOMMENDATIONS

VIDEOS

Print
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Gendered Innovation 2: Pregnant Computer Crash Simulations

The advances discussed above systematically exclude pregnant bodies. Conventional seatbelts do not fit pregnant women properly, and motor vehicle crashes are the leading cause of fetal death related to maternal trauma (Weiss et al., 2001; Acar et al., 2018). Even a relatively minor crash at 56km/h (35 mph) can cause harm. With over 13 million women pregnant across the European Union and United States each year, the use of seatbelts during pregnancy is a major safety concern (Eurostat, 2011; Finer & Kost, 2011).

Seatbelts were first installed in automobiles in the 1950s, and their use became mandatory in the late 1980s and early 1990s. As early as 1967, the American Medical Association advocated the use of seatbelts by pregnant women (Committee, 1972). At that time, little laboratory research in seatbelt design addressed pregnant women, making it difficult to assess the comparative effectiveness of various seatbelt designs and other safety technologies, such as the airbag (Insurance Institute for Highway Safety, 1972). As seatbelt usage increased, injuries caused by lap belts began to raise concerns that seatbelts might be hazardous to the fetus even when mothers are not injured (Committee, 1972).

Current research suggests that pregnant women should use the 3-point seatbelt (McGwin et al., 2004), yet for many women, particularly those who carry low, 3-point seatbelts ride up on the pregnant belly. In a crash, this increases force transmission to the abdomen by three- or four-fold relative to the force transmitted when the belt is worn below the uterus, with a corresponding increased risk of fetal injury (Pearlman et al., 1996).

The development of pregnant crash test dummies and computer simulations have the potential to play a key role in increasing seatbelt safety for fetuses.

While improvements to the pregnant crash test dummy (the MAMA-2B created in 1996) are ongoing, in 2002 researchers in the U.S. adapted crash simulation software to model a 5th percentile dummy equipped with a virtual uterus, placenta, and amniotic fluid as well as uterosacral and round ligaments (Moorcroft, 2003). Using this computer model, validated by cadaver and real-world crash data, researchers modeled differences in outcomes between unbelted, belted, and improperly belted pregnant passengers. In 2008, researchers further improved this computer model by adding a realistic 38-week fetus (developed using ultrasound images) and modeling in utero fetal motion during impact (Acar et al., 2009).

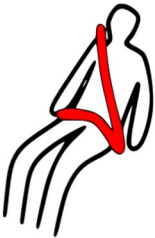
In 2002, Volvo also developed a virtual pregnant crash dummy "Linda" in her 36th week of pregnancy. Other car companies and researchers have also used computer models and pregnant crash test dummies in safety testing (Hilosugi et al., 2018; Vladutiu & Weiss, 2012).

Conclusions


Gendered Innovations have led to more inclusive standards for crash test dummies. In 2019, Volvo announced its E.V.A. (Equal Vehicles for All), an initiative that recognizes that virtual models and physical dummies need to represent a greater variety of body types. To this end, they are sharing their research and data from real-world crashes (Volvo, 2019). Academic and industry researchers are now ramping up efforts to expand crash test dummies to better model the human population. Women's bodies, pregnant bodies, older bodies, and larger bodies, however, are still not standard or required in automobile safety tests.

Next Steps

1. The U.S. National Highway Traffic Safety Administration (NHTSA) currently requires safety testing using dummies modeling average and small male bodies, but not 95th percentile male, elderly people, obese people, pregnant women, or female bodies.



The 3-point seatbelt was developed in 1959.



"Linda" by Volvo, a virtual pregnant crash-test dummy designed in 2002 by engineer Laura Thackray. "Linda" models the effects of high-speed impact on the womb, placenta, and fetus.

Source: Gendered innovations

What is Gendered Innovations?

SEX & GENDER ANALYSIS

General Methods

Specific Methods

Terms

Checklists

CASE STUDIES

Science

Health & Medicine

Engineering

Environment

INTERSECTIONAL DESIGN

POLICY RECOMMENDATIONS

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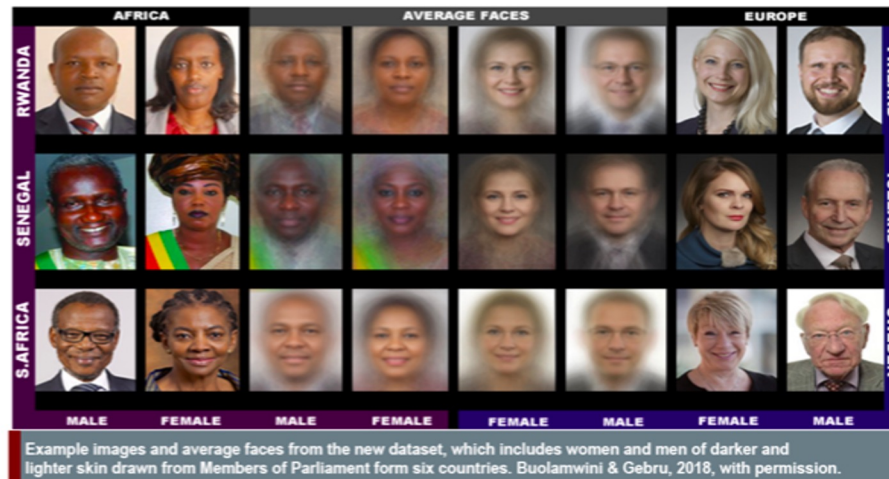
Gendered Innovation 2: Creating Intersectional Training Datasets

The accuracy of FRSs is determined by the set of images or videos collected for testing. For the FRSs to perform well, training data must be sufficiently broad and diverse to enable the predictive model to accurately identify faces in a variety of contexts.

Zhao et al. (2017) found that when photographs depict a man in a kitchen, automated image captioning algorithms systematically misidentify the individual as a woman, in part because training sets portray women in cooking contexts 33% more frequently than men. The trained model amplified this disparity from 33% to 68% during testing. It is crucial to get the training data right.

In the now well-known Gender Shades study, Buolamwini & Gebru (2018) measured the accuracy of commercial gender classification systems from Microsoft, IBM and Face++, and found that darker-skinned women were often misclassified. Systems performed better on men's faces than on women's faces, and all systems performed better on lighter-skin than darker-skin. Error rates were 35% for darker-skinned women, 12% for darker-skinned men, 7% for lighter-skinned women and less than 1% for lighter-skinned men.

To overcome these problems, the team developed and labelled an intersectional dataset to test gender and race classification performance on four subgroups: darker-skinned women, darker-skinned men, lighter-skinned women and lighter-skinned men. Since race and ethnicity labels are culturally specific, the team used skin shade to measure dataset diversity (Cook et al., 2019). Their dataset consisted of 1270 images from three African countries (Rwanda, Senegal and South Africa) and three European countries (Iceland, Finland and Sweden).



An update to Gender Shades retested the three commercial systems previously examined and expanded their review to include Amazon's Rekognition and a new system from a small AI company called Kairos. They found that IBM, Face++ and Microsoft had all improved their gender classification accuracy for darker-skinned women, with Microsoft reducing its error rate to below 2% (Raji & Buolamwini, 2019). Amazon's and Kairos's platforms, however, still had accuracy gaps of 31% and 23%, respectively, between lighter-skinned men and darker-skinned women.

Added value of gender dimension in research

Research and
Engineering

Excellence and quality
in outcomes, creativity
and innovation, new
perspectives/new
questions

Society

More responsive to social
needs

Business

Developing new ideas,
patents, technology

Source: Gendered innovations

Integrating sex and/or gender analysis into research and innovation:

- helps researchers and innovators question gender norms and stereotypes, and rethink standards and reference models;
- leads to an in-depth understanding of diverse gender needs, behaviours and attitudes;
- enhances the societal relevance of the knowledge, technologies and innovations produced;
- contributes to the production of goods and services better suited to new markets.

Source: Gendered innovations report 2

Gender dimension and funding

Encouraging/requiring researchers to include gender dimension in proposals

- **European Commission: Gender dimension in research – one of six key priorities of the European Research Area (ERA)**
 - As part of the Excellence criterion in proposals(Horizon Europe Funding) : Describe how the gender dimension and other diversity aspects is taken into account in the project's research and innovation content [e.g. 1 page]. If you do not consider such a gender dimension to be relevant in your project, please provide a justification.
- **UKRI Global Challenges Research Fund (GCRF) and Newton Fund: Gender equality statement (mandatory)**
 - 'meaningful consideration as how project contributes to reducing gender inequalities'(1p) (Consider involvement of different genders; impact on people of different genders/impact on relations/risks and consequences to GE might be mitigated/avoided; outcomes/outputs with data disaggregated by age and gender)

Funding and publishing - gender dimension

Major Granting agencies worldwide:

<http://genderedinnovations.stanford.edu/sex-and-gender-analysis-policies-major-granting-agencies.html>

- Require/encourage/encourage + evaluators have to score this element

Peer reviewed journals

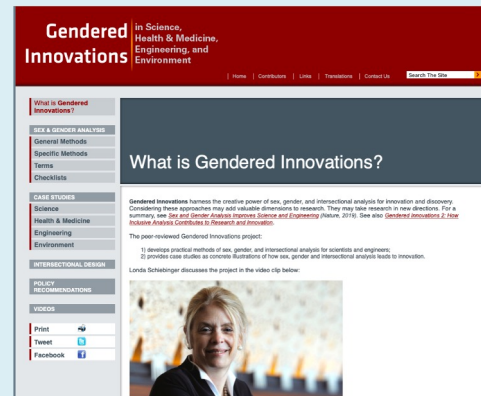
<http://genderedinnovations.stanford.edu/sex-and-gender-analysis-policies-peer-reviewed-journals.html>

- Guidelines for authors/reviewers
- Biomedical research
- SAGER Guidelines (Heidari et al.2016)

- Any questions/comments?

Resources/ How to include the gender dimension?

- Gendered innovations (EC and Stanford University) - 2009 -
 - Expert groups
 - Provide practical methods, case studies
 - Collaborations with more than 200 experts worldwide
- Toolkit for integrating gender in EU funded research (2011)
 - Gender Sensitive Research Cycle

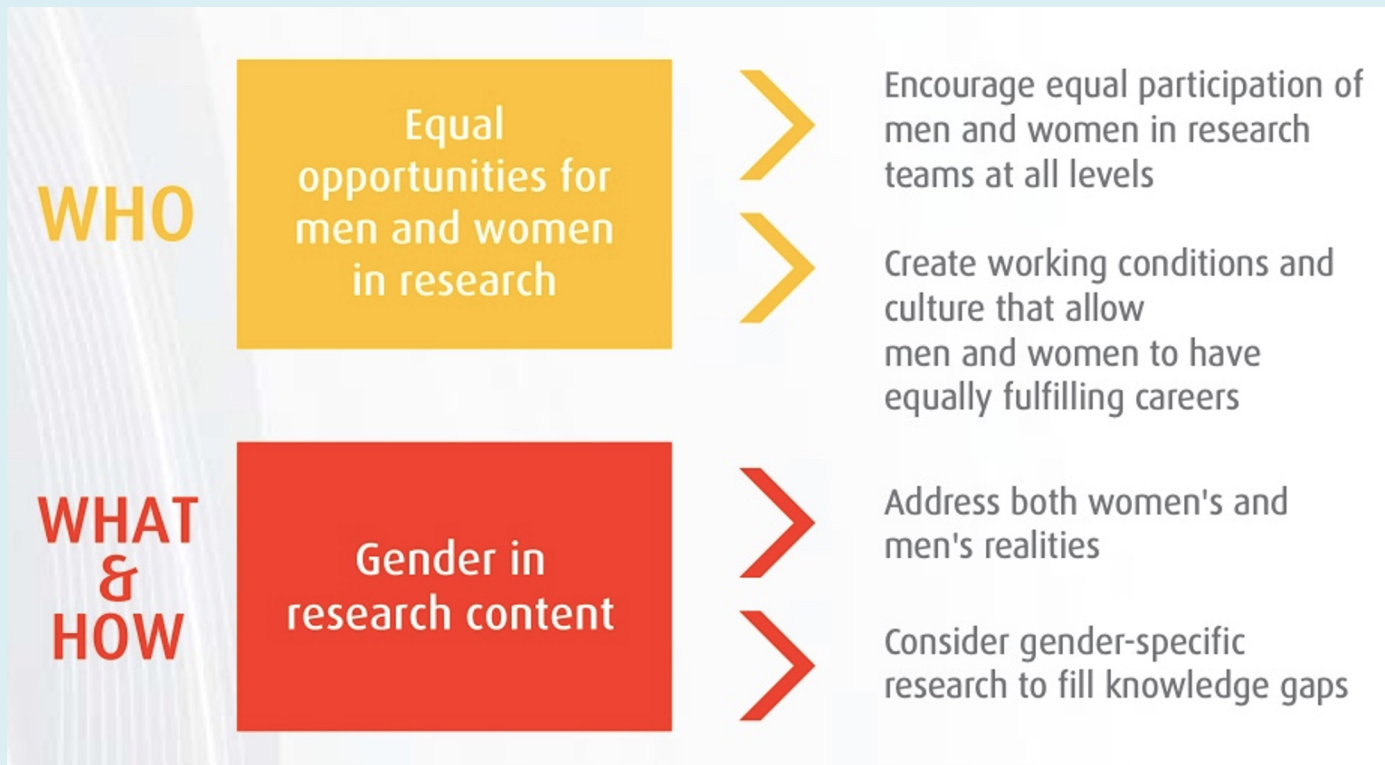


Improving research



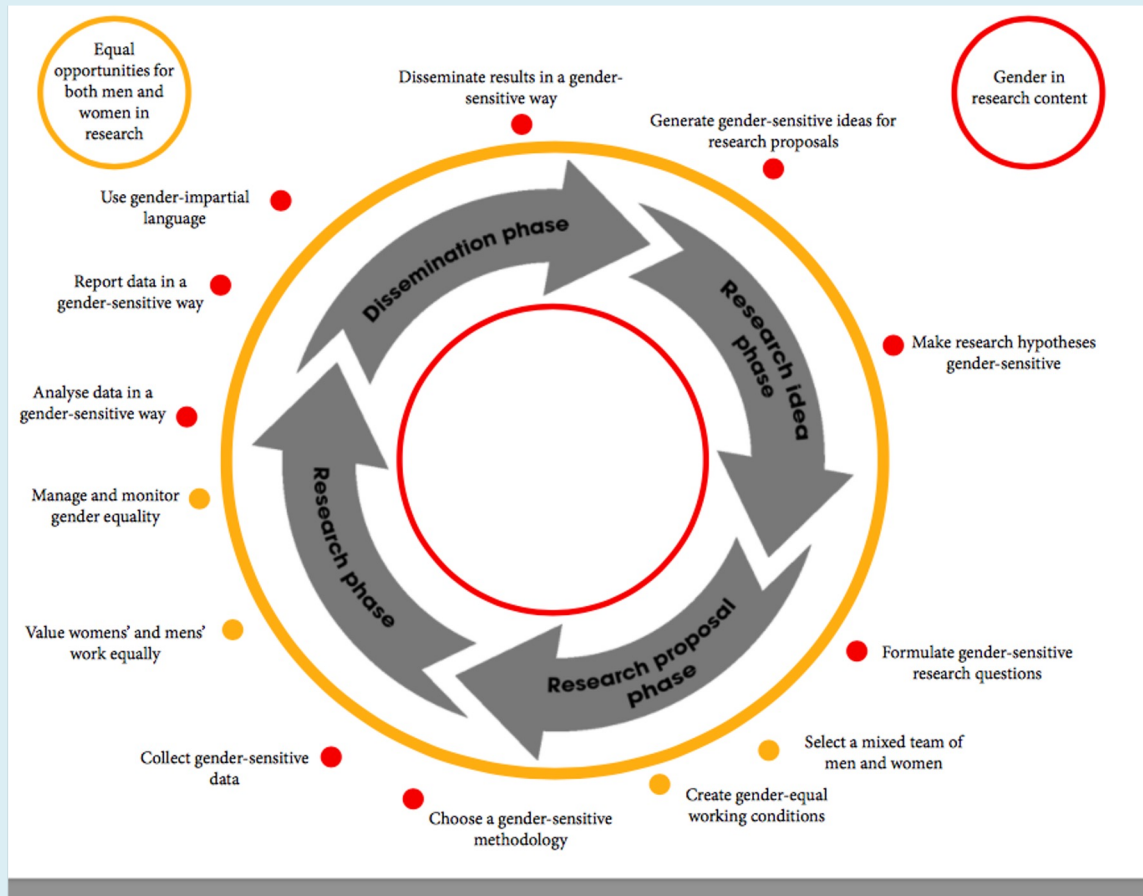
Source: Gendered Innovations

Toolkit for integrating gender (EC,2011)



4 PHASES

Gender-sensitive research cycle (EC, 2011)



Equal opportunities for women and men in research

- Is there a gender balance in the project consortium and team, at all levels and in decision-making positions? Is your team diverse?
- Do working conditions (working hours, tasks) allow all members of staff to combine work and family life in a satisfactory manner? (e.g. will people with caring responsibility receive adequate support in carrying out their job.)
- Are there mechanisms in place to manage and monitor gender equality aspects, e.g. workforce statistics?
- Have you noticed a pattern of hierarchical gendered relations in your team?
- If there is a significant gender imbalance in your research group and other protected population groups are missing, how do you encourage people belonging to the minority groups to apply for a new position in your project?

Sources: 6,9

Research ideas phase

- Have you considered how assessments of sex/gender, including stereotypes about what is considered “female” or “male”, can affect what you want to investigate, what questions you ask and how to answer them?
- Did you have different groups of men and women and gender minority people in mind when you formulated the research question? When identifying a research problem, did you consider how men, women and people from gender minority groups differently relate to that problem?
- Have any potentially relevant groups of research subjects been left out (e.g., female animals in animal research, men in osteoporosis research, pregnant women in automotive engineering)?
- Is sex/gender important for understanding the phenomenon you will investigate, and if so, how? Are there other dimensions that can be considered in relation to sex/gender, such as age, ethnicity, educational level, income, occupation, geographical location or technical competence?
- Have you reviewed literature and other sources relating to sex/gender in the research field? Have you looked for gender sensitive literature or research projects in your field? What is the current state of knowledge of [sex](#) and [gender](#) ([norms](#), [identities](#), or [relations](#)) in a given area of research or development?

Sources: 1,6,9

Proposal phase

- Does the project's research topics and methods take the sex/gender dimension into account? Does the proposal explain how the sex/gender dimension will be handled?
- Are researchers trained in gender studies included in the research group?
- Have you considered whether the results of the research can have different effects on women and men, boys or girls? Can the research contribute to the advancement of gender equality?

Sources: 1, 6,9

Research phase

- Are research methods, such as questionnaires, focus groups, etc., designed in a way that considers possible sex/gender differences and similarities between gender? Will sex/gender-differentiated data be collected? Have you ensured that samples, test groups or other involved in the project are diverse in terms of sex/gender, age and other background variables?
- Will sex/gender be a variable in the analysis? Will other variables be included in relation to sex/gender in the analysis?
- Are unconscious (stereotypical) assumptions about sex/gender implicit in the interpretation of data? Are there dimensions other than sex/gender that are important to consider?
- Also consider the gender/sexuality of the researcher who collects the data and how these might be affected especially in methods (interviews, ethnography, f2f SURVEYS)

Analysing sex

1. Reporting the sex of research subjects or users. This is a prerequisite to sex analysis
2. Recognising differences that exist *within* groups of females and males/women and men. Both biological and sociocultural factors differ substantially among individuals within each sex over their respective lives
3. Collecting and reporting data on factors intersecting with sex in study subjects or users/consumers.
4. Analysing and reporting results by sex. Sex-specific analyses should be conducted and the findings reported.
5. Reporting null findings

Source: Gendered innovations

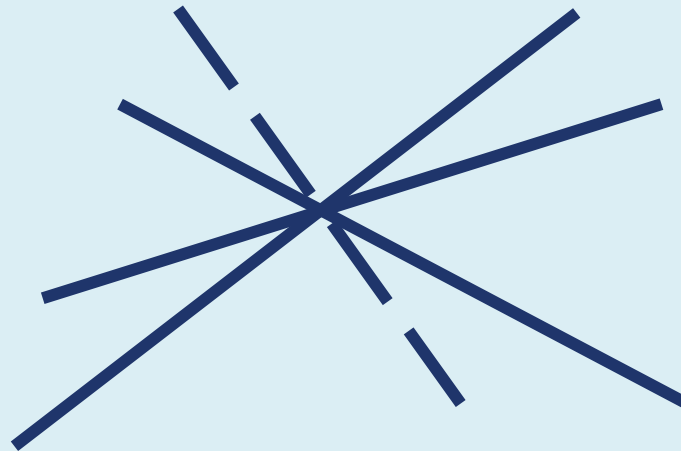
Analysing gender

1. What are the researchers' or engineers' gendered assumptions and behaviors that affect the proposed research? (assumptions about men/women, choices for research subjects/users)
2. What are the research subjects' and users' gender needs, assumptions, or behaviors as they affect the proposed research
3. How do #1 & #2 interact? How do the genders of the researcher and the genders of the subject/user interact?

Source: Gendered innovations

Other factors intersecting with sex and gender

Genetics
Age
Sex Hormones
Reproductive Status
Body Composition
Comorbidities
Body Size
Disabilities
Ethnicity
Nationality
Geographic Location
Socioeconomic Status
Educational Background
Sexual Orientation
Religion Lifestyle
Language
Family Configuration
Environment



Source: Gendered innovations

Dissemination phase

- Is the sex/gender dimension included in the presentation of findings?
- If the sex/gender dimension is included, is it done in a way that does not reproduce stereotypical notions about gender, but also looks at variations within the gender categories?
- Have you considered that dissemination of the research findings can be directed towards networks, institutions, journals and conferences that address gender issues?
- Have you checked if your publication presents images of different genders? Have you considered whether these image might reproduce stereotypical gender roles?
- Have you considered how people of different genders could use the project results in different ways? In what ways do your research outcomes relate to gender inequalities in the society?

Sources: 1, 6,9

Problems to avoid when analysing gender

Problems can arise if researchers assume that:

- all women as a group, all men as a group and all gender-diverse people as a group (their attitudes, preferences, needs, behaviours and knowledge) are the same;
- women, men and gender-diverse people are completely different;
- observed differences between women and men are solely biological in origin;
- observed gender differences hold across cultures;
- life conditions and opportunities are similar for women, men, and gender-diverse people;
- birth sex can be used as a proxy for gender identity in surveys;
- certain questions are relevant to only one gender (e.g. survey questions about caregiving relate primarily to women or questions about the strain of physical work primarily to men).

Source: Gendered Innovations Report 2

Gender dimension in research - caveats

- Not always relevant?
- Not only for researchers interested in gender
- It is not about counting the number of women and men
- It is not about emphasizing the differences between men and women
- Could involve different theoretical and methodological approaches
- Important to understand how gender relations work in different contexts and how the intersection with other variables such as income level, ethnicity, geographical position, age might be relevant

Source: Gendered innovations

Checklists to keep in mind

- [Health & Medicine](#)
- [Tissues & Cells](#)
- [SABV in Biomedicine](#)
[\(Gendered innovations website\)](#)
- [Checklist \(UKRI\)](#)
- [Gender sensitive research cycle checklist](#)

Case studies

Useful interdisciplinary
case studies



Useful resources

1. Gendered innovations: <https://genderedinnovations.stanford.edu>
2. GENDERED INNOVATIONS REPORT 2 : <https://op.europa.eu/en/publication-detail/-/publication/33b4c99f-2e66-11eb-b27b-01aa75ed71a1/language-en>
3. [Institute of Gender and Health](http://www.cihr-irsc-igh-isfh.ca/?lang=en) : <http://www.cihr-irsc-igh-isfh.ca/?lang=en>
4. Selection of measures for integrating gender into research and curricula (GARCIA project): http://garciaproject.eu/wp-content/uploads/2016/12/GARCIA_D4.5-Selection-of-measures-for-integrating-gender-into-research-and-curricula.pdf
5. Korsvik, T. R., & Rustad, L. M. (2018). What is the gender dimension in research. *Cases studies in interdisciplinary research. Kilden genderresearch. no Norway.*
6. European Commission, Directorate-General for Research and Innovation, *Toolkit gender in EU-funded research*, Publications Office, 2011, <https://data.europa.eu/doi/10.2777/62947>
7. Heidari, S., Babor, T.F., De Castro, P. et al. Sex and Gender Equity in Research: rationale for the SAGER guidelines and recommended use. *Res Integr Peer Rev* 1, 2 (2016). <https://doi.org/10.1186/s41073-016-0007-6>
8. UK Research and Innovation - EDI : <https://www.ukri.org/about-us/policies-standards-and-data/good-research-resource-hub/equality-diversity-and-inclusion/>
9. Xie K., Ah Baek C., Cheve G. (2020) Toolkit for integrating a gender-sensitive approach into research and checklist for preparing the gender equality statement for grant applications to UKRI CGRE and Newton fund calls